

REMARKS/ARGUMENTS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1-3, 5-7, and 9-11 are pending in the present application, Claims 1-3, 5-7, and 9-11 having been amended, and Claims 4 and 8 having been canceled without prejudice or disclaimer. Support for the amendments to Claims 1-3, 5-7, and 9-11 is believed to be self-evident from the originally filed disclosure. Applicants respectfully submit that no new matter is added.

In the outstanding Office Action, Claims 1 and 8 were objected to; Claims 1-4 and 6-8 were rejected under 35 U.S.C. §102(b) as anticipated by Yanagisawa (JP 2000-315923); Claims 5 and 10 were rejected under 35 U.S.C. §103(a) as unpatentable over Yanagisawa; and Claims 9 and 11 were objected to for depending from a rejected claim, but were otherwise indicated as including allowable subject matter.

Applicants thank the Examiner for the courtesy of an interview extended to Applicants' representative on February 3, 2009. During the interview, differences between the present invention and the applied art, and the rejections noted in the outstanding Office Action were discussed. No agreement was reached pending the Examiner's further review when a response is filed.

Applicants thank the Examiner for the indication of allowable subject matter. However, these claims have been presently maintained in dependent form because Applicant considers the amended pending independent claims patentably distinguishing over the applied art.

The informality identified in Claim 1 is corrected, and the objection to Claim 8 is moot in view of its cancellation. Accordingly, the objections to Claims 1 and 8 are overcome.

With respect to the rejection of Claim 1 as anticipated by Yanagisawa, Applicants respectfully submit that the amendment to Claim 1 overcomes this ground of rejection. As discussed during the above-noted interview, Claim 1 is amended to clarify the gain switching period. Particularly, amended Claim 1 recites, *inter alia*,

the gain switching circuit inputting a first gain switching signal defining a period for switching to a first conversion gain and a second gain switching signal defining a period for switching to a second conversion gain, said first gain switching signal and said second gain switching signal originating from outside of the gain switching circuit, the gain switching circuit comprising:

a first operating unit configured to generate a first switching element operating signal to close the first switching element in response to the voltage signal output by the preamplifier being above a first threshold during the period defined by the first gain switching signal originating from outside the gain switching circuit; and

a second operating unit configured to generate a second switching element operating signal to close the second switching element in response to the voltage signal output by the preamplifier being above a second threshold during the period defined by the second gain switching signal originating from outside the gain switching circuit.

Yanagisawa does not disclose or suggest the above-noted features of amended Claim 1.

Yanagisawa describes a burst photoreceiving circuit that switches a feedback gain of a transimpedance amp in accordance with a power level of an input signal. As shown in Fig. 2 of Yanagisawa, when the input signal in part (b) is above a reference voltage (V1 or V2), switches TR1 or TR2 are activated. Yanagisawa describes that the photoreceiving circuit is arranged so that a switching element performs an ON operation whenever the output amplitude of the transimpedance amp exceeds a reference voltage (V1 or V2).

However, the invention defined by Claim 1 does not perform an ON operation whenever the output amplitude of the transimpedance amp exceeds a reference voltage. On the contrary, the invention defined by Claim 1 includes a first gain switching signal that

defines a period for switching to a first conversion gain that originates from outside of the gain switching circuit, and a second gain switching signal that defines a period for switching to a second conversion gain that originates from outside of the gain switching circuit. For the first switching element to be closed in the invention defined by Claim 1, the voltage signal output by the preamplifier is above a first threshold “during the period defined by the first gain switching signal originating from outside the gain switching circuit.” Yanagisawa always perform an ON operation whenever the output amplitude of the transimpedance amp exceeds a reference voltage (V1 or V2), and does not condition the ON operation to occur when the output amplitude of the transimpedance amp exceeds a reference voltage (V1 or V2) “during the period defined by the first gain switching signal originating from outside the gain switching circuit.” The timing diagram in Fig. 3 of Yanagisawa is devoid of:

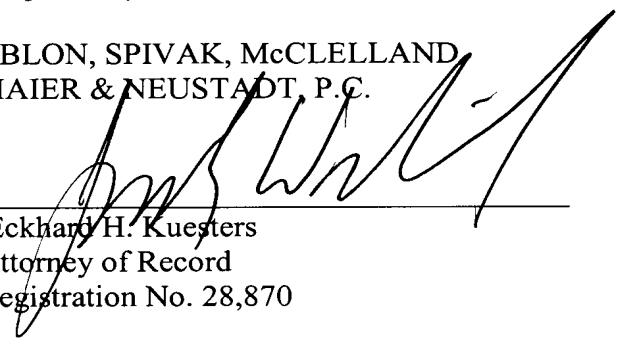
a first gain switching signal defining a period for switching to a first conversion gain and a second gain switching signal defining a period for switching to a second conversion gain, said first gain switching signal and said second gain switching signal originating from outside of the gain switching circuit.

In view of the above-noted distinctions, Applicants respectfully submit that Yanagisawa does not disclose or suggest the above-noted elements in amended Claim 1. Thus, Claim 1 (and any claims dependent thereon) patentably distinguish over Yanagisawa. Amended Claim 6 recites elements analogous to those of Claim 1. Thus, Claim 6 (and any claims dependent thereon) patentably distinguish over Yanagisawa, for at least the reasons stated for Claim 1.

Consequently, in light of the above discussion and in view of the present amendment, the present application is believed to be in condition for allowance and an early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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